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ZANZIBAR PROTECTORATE.

ANNUAL REPORT

ON THE

AGRICULTURAL DEPARTMENT

FOR THE YEAR

1925.

ZANZIBAR:

PRINTED BY THE GOVERNMENT PRINTER.

1926

ZANZIBAR PROTECTORATE.

REPORT ON THE AGRICULTURAL DEPARTMENT, FOR THE YEAR 1925.

SECTION I.

STAFF.

Three new members were added to the staff during the year. Mr. H. Waterland, Agricultural Officer returned from leave on April 2nd and resumed his duties in Pemba. The Assistant Director went on leave in the middle of May and resumed duty on 2nd of October. Mr. H. Pearson, Assistant Agricultural Officer, went on leave on February 18th and resumed duty on August 11th. Mr. A. D. Ingrams, a new Agricultural Officer, arrived to take up his duties on August 11th. Mr. K. E. Toms, the newly appointed Horticulturist, arrived on November 30th. This appointment will relieve the Directorate of an ever increasing amount of routine work in connection with the Public Gardens. Much of this work was outside the realm of agriculture. It is also hoped to develop suitable Garden crops on commercial lines. Mr. Toms is also giving elementary instruction in gardening to pupils in the Government Schools.

Mr. J. E. Baker, a newly appointed Agricultural Officer, only arrived at the end of December. The Director, the Mycologist and Mr. Graham Tomson, the Senior Agricultural Officer, were on duty the whole year.

SECTION II.

GENERAL.

Labour conditions on the plantations remain very much the same as during last year. A large amount of mainland labour in both islands is at present employed on Public Works, chiefly roads. Many prefer this work to agriculture as although they have to work longer hours they get a higher rate of pay. The completion of the roads should therefore be a double benefit to the owners of plantations. The immigration of labour from the mainland continues to be satisfactory.

CLOVES.

The clove crop was of average size, between five and six lakhs of frasilas. The harvesting season was very unsatisfactory, there was only one picking and the cloves ripened almost simultaneously throughout the two islands. The period of picking was thus very much shorter than usual with the result that the pickers were unable to move about to follow the ripening crop. Added to these troubles the weather was extremely bad and cloves which were picked could not be dried. Instead of being dried in four days they were as long as a fortnight on the drying floors, most of the time exposed to rain. An inferior sample of cloves was produced. Many cloves were left on the trees because the pickers could not work in the heavy rains. It is many years since we had such heavy rains during the last three months of the year.

Prices were lower than in the previous year ranging only from Rs. 15 to Rs. 18½ per frasila.

COPRA.

The amount of copra exported from the Protectorate during the year was 11,03,717 frasilas. This is a new record. The average amount exported during the previous 10 years was 5,78,793 frasilas. In the production of copra therefore it is evident that considerable progress is being made. I only wish I could say that the quality was improving. It is easier to produce inferior copra and so long as it pays better than to produce good it is difficult to see in what way improvement can be effected.

The average price during the year has been Rs. 4.49.

SECTION III.

DIRECT ASSISTANCE TO PLANTATION OWNERS.

The staff has been very much occupied with work under the bonus scheme for the planting of young clove trees. The first lot of young trees planted under this scheme and inspected and marked in 1922 became eligible for the second instalment of the bonus and had to be re-inspected. This work, in addition to the inspection of the young trees planted in 1924, and now eligible for the first instalment of the bonus, made things very difficult with the limited staff at our disposal. It was hoped that the two new Agricultural Officers provided in the Estimates would arrive sufficiently early in the year to be of service, but as the first man did not arrive until August he was not able to be of much assistance. By the time the second man arrived at the end of December it had been decided to give him the work of inspection under the Agricultural Produce (Adulteration) Decree so that he was altogether unavailable. The result is a considerable congestion of work and plantation owners are somewhat impatient. It is not easy to persuade them that there is no fear of their not

getting their money. There is however some logic in their contention that should the trees die in the meantime they certainly would be the losers.

PUBLIC CLOVE NURSERIES.

The Government nurseries where young clove trees are reared and supplied free to plantation owners, have with one exception been well patronized. Although every endeavour is made to get plantation owners to let us know their probable requirements in advance so that we can arrange to provide plants for them, their final requirements always appear to exceed their expectations, so that at the planting season the demand is considerably in excess of what we are able to supply. Last season over 80,000 young plants were given away in the two Islands.

The nurseries at Makondeni in Pemba are being closed down, as although they have been going for two or three years plantation owners refuse to patronize them. Everything upon this particular shamba is locally supposed to be under an evil influence, young clove trees apparently so much so that nobody will accept them as a gift. To select suitable nursery sites one has to take into account factors which are quite impossible to ascertain except by those few who have made a study of local psychology.

The leading plantation owners of the Chake Chake District in Pemba have requested us to make a nursery at Mkanjuni and arrangements are in progress for carrying out their wishes.

BONUS ON BEARING CLOVE TREES.

The bonus on bearing clove trees continues to be very popular and it is now realized that though not perhaps a perfect method it is the only one which can be adopted under existing conditions and it fills a real need. This bonus was distributed last year at the rate of Rs. 15 for every 100 trees and the total amount paid out was Rs. 4,74,533. Owners are allowed to claim one year's arrears of bonus, this is to assist people who owing to illness or absence from the country were unable to present their books at the office during any one year. It is also useful in case of small plantation owners where it is hardly worth their while to come every year.

BONUS ON YOUNG CLOVE TREES.

A sum of Rs. 25,720 has been paid out as bonus on young clove trees. Those young trees inspected and passed in 1922 became eligible for the second bonus instalment of half a rupee per tree. The work of inspecting has thus become considerably increased and the staff at present employed cannot keep pace with it. A certain number of check countings of bearing clove trees must always be done so as to ensure returns being given correctly and this has to be undertaken by the same staff.

LOANS FOR CLOVE PICKING.

The Department advanced Rs. 75,512 as loans to plantation owners to enable them to start picking their cloves. Of this sum Rs. 58,090 was advanced in Zanzibar and Rs. 17,422 in Pemba. This is rather singular seeing that Pemba produces so many more cloves.

It is also worthy of notice that the Pemba owners refund their loans with greater promptitude than those in Zanzibar.

Indications are not lacking to show that in future these loans will have to be made on more business-like lines. The security which is at present given is ineffective and is bound to lead to trouble sooner or later.

ADVANCES ON CLOVES STORED UNDER GOVERNMENT CONTROL.

This system was started two years ago and many plantation owners have availed themselves of it.

Advances of cash up to seven rupees per frasila are made by the Government to owners handing over their cloves to be stored. They can sell at any time they choose on repaying the advance. They may also store their cloves free of charge without taking any such advances.

SECTION IV.

GOVERNMENT PLANTATIONS.

The financial position of the Government Plantations is shown on table 13. It is very much the same as last year only more time and money has been spent upon clearing and planting.

The experiments on the replanting of clove areas at Machui which were started some years ago are still very interesting. The original clove trees are probably about 50 years old and are planted at the standard distance of 21 feet apart on the square. The trees had become unhealthy in appearance and were bearing very few cloves. In the first case the old trees were removed in alternate rows and young ones planted in their places. In the second case the old trees were removed in alternate rows diagonally.

In each case the young trees have done well but the effect upon the old trees was quite unexpected. The remaining old trees have revived to a wonderful extent and are now bearing quite twice the amount of cloves previously borne. This experiment proves that on good soil the trees should be planted more than 21 feet apart as it was apparent that the acquisition of more light and air alone was responsible for the improvement.

Another experiment in replanting was started last year at Mgon-gowangamia. In this case the young trees are being planted 30 feet apart and a block is cleared each year of sufficient area to accommodate 63 trees. The work is being done on forestry lines so that we can see when the trees come into bearing, when they are at their best, and at what age they begin to decline. It will also demonstrate the effect of wider planting. In the ordinary type of plantation where re-generation is carried out by filling in the gaps caused by deaths, it is not possible to alter the distance between the trees. The system is one well worth demonstrating and is of such a nature that no ordinary plantation owner would care to undertake the expense until he was assured that it would turn out a success. Experiments of this nature must be carried out upon a fairly large scale in order to prove their worth and the Government plantations are admirably adapted for this purpose.

The Departmental copra factory at Mtoni has fully demonstrated its value as a means of producing a superior article of commerce. The amount of copra turned out during the first year of working was 111.3 tons and the price realized Rs. 34,266. The total working expenses amounted to Rs. 5,653 so that the profits amounted to Rs. 28,613. This is satisfactory as the work was at first entirely experimental and the cost of working correspondingly high. In starting anything new there is bound to be labour trouble and high wages are invariably demanded and have to be paid for a time. However as time went on we were able to reduce costs of production all round. In the ordinary course of events work in connection with the picking of coconuts and the preparation of copra is of an intermittent nature, but as soon as it was seen that we had organised our work so as to give regular employment to the staff throughout the year, we had no further trouble in obtaining labour at comparatively reasonable rates. Here we are able to demonstrate that high-class copra can be produced by means which any ordinary plantation owner can adopt and without the necessity of erecting expensive and elaborate machinery. The factory is open for public inspection at all times.

SECTION V.

METEOROLOGY.

Meteorological observations are taken at six different stations in Zanzibar and at two in Pemba. The rain gauge at Kigomacha was put out of action during the year and some time elapsed before a new gauge could be fixed.

Two new rain recording stations are being started in Pemba in 1926 in the south of the Island, one at Mkoani and the other at Fufuni.

The rainfall at the various recording stations was as follows:--

ZANZIBAR.

Zanzibar town	... 65.68
Mkokotoni	... 74.87
Selem	... 79.28
Kidichi	... 90.29
Koani	... 85.98
Chwaka	... 59.65

PEMBA.

Banani	... 63.66
Weti	... 65.45

The rainfall during the year was somewhat abnormal in that with the exception of Chwaka all the Zanzibar stations recorded more than those in Pemba. The rainfall in Zanzibar Island was exceptionally heavy.

In Zanzibar Town rain fell on 123 days and at Banani in Pemba on 179 days. The maximum rainfall in Zanzibar on any one day was 6.2 inches on December 13th, and at Banani 3.1 inches on July 7th. The greatest amount of rain recorded during any one month was 12.87 inches in December in Zanzibar and 10.65 inches at Banani in April.

Zanzibar Town return is provided by Dr. Copland, and Banani return by the Friends' Industrial Mission.

R. ARMSTRONG,

Acting Director of Agriculture.

TABLE I.

1925 LOANS FOR HARVESTING, FREE OF INTEREST.

	Loans	Rs.
Zanzibar	... 117	58,090
*Pemba	... 216	17,422
	—	—
Total	... 333	75,512
	—	—
{Weti	... 78	6,740
* {Chake Chake	... 88	7,860
{Mkoani	... 50	2,822
	—	—
Total	... 216	17,422
	—	—

TABLE II.

FREE STORAGE OF CLOVES.

1925 1st January to 31st December.

Number of individuals	...	22
Number of individuals taking loans	...	27
Fraslas of cloves stored	...	12,209
Fraslas of cloves stored upon which cash advanced	...	12,510*
Amount advanced	...	75,850

*Partly stored in 1924.

TABLE III.

Clove deliveries compared with former years:—

Month.	1920.			1921.		
	Zanzibar	Pemba	Total	Zanzibar	Pemba	Total
	fras.	fras.	fras.	fras.	fras.	fras.
January	24,340	18,319	42,659	47,061	70,184	117,245
February	11,050	9,468	20,518	62,006	83,037	145,043
March	4,353	8,208	12,561	29,382	26,590	55,972
April	3,874	6,895	10,769	22,493	22,851	45,344
May	2,042	3,868	5,910	8,098	19,510	27,608
June	644	1,055	1,699	6,885	17,615	24,500
July	982	9,592	10,574	15,023	10,554	25,577
August	4,598	1,573	6,171	7,557	20,365	27,922
September	8,898	4,504	13,402	4,721	30,653	35,374
October	6,461	9,734	16,195	7,465	35,950	43,415
November	17,995	26,144	44,139	8,056	21,392	29,448
December	16,972	25,112	42,084	6,271	26,447	32,718
	—	—	—	—	—	—
Total	102,209	124,472	226,681	225,018	385,148	610,166
	—	—	—	—	—	—

AGRICULTURE

Month.	1922.			1923.		
	Zanzibar	Pemba	Total	Zanzibar	Pemba	Total
	fras.	fras.	fras.	fras.	fras.	fras.
January	9,948	12,337	22,285	65,298	107,218	172,516
February	3,288	11,252	14,540	47,409	67,056	114,465
March	1,093	6,417	7,510	31,827	34,245	66,072
April	1,021	9,792	10,813	14,400	27,327	41,727
May	837	7,107	7,944	4,875	30,371	35,246
June	539	8,716	9,255	9,716	31,333	41,049
July	911	59	970	7,636	26,840	34,476
August	9,943	1,520	11,463	4,100	17,968	22,068
September	17,631	23,669	41,300	7,764	31,980	39,744
October	30,282	92,075	122,357	6,197	39,771	45,968
November	28,336	118,234	146,570	4,960	43,663	48,623
December	29,579	141,675	171,254	2,447	19,228	21,675
Total	133,408	432,853	566,261	206,629	477,000	683,629

Month.	1924.			1925.		
	Zanzibar	Pemba	Total	Zanzibar	Pemba	Total
	fras.	fras.	fras.	fras.	fras.	fras.
January	13,933	15,037	28,970	43,641	49,239	92,880
February	17,454	13,532	30,986	11,264	41,348	52,612
March	6,184	12,904	19,088	9,439	32,107	41,546
April	2,923	5,680	8,603	2,933	23,259	26,192
May	1,044	3,308	4,352	4,304	23,526	27,830
June	385	6,856	7,241	2,105	21,587	23,692
July	341	2,721	3,062	5,596	15,445	21,041
August	2,235	26,409	28,644	9,366	40,711	50,077
September	23,358	88,072	111,430	42,162	88,069	130,231
October	43,968	90,716	134,684	67,918	80,357	148,275
November	43,274	74,445	117,719	38,215	44,699	82,914
December	54,090	51,365	105,455	27,531	48,615	76,146
Total	209,189	391,045	600,234	264,474	508,962	773,436

TABLE IV.

Protectorate clove crops for the past 20 seasons:—

Season.	Zanzibar	Pemba	Total
	Fras.	Fras.	Fras.
1905/06	178,435	129,735	308,170
1906/07	63,004	203,496	266,500
1907/08	213,662	541,993	755,655
1908/09	165,727	449,691	615,418
1909/10	109,678	300,047	409,725
1910/11	45,194	139,307	184,501
1911/12	216,507	582,153	798,660
1912/13	31,018	104,368	135,386
1913/14	145,586	638,094	783,680
1914/15	194,920	331,389	526,309
1915/16	141,641	655,116	796,757
1916/17	208,716	302,919	511,635
1917/18	63,958	234,239	298,197
1918/19	259,273	565,229	824,502
1919/20	93,847	168,703	262,550
1920/21	231,831	316,446	548,277
1921/22	65,819	200,983	266,802
1922/23	291,417	690,498	981,915
1923/24	75,027	236,767	311,794
1924/25	240,953	520,490	761,443
Average 20 Seasons	151,810	365,583	517,393

Note.—Season—1st July to 30th June.

One frasla equals 35 lbs.

TABLE V.
Annual Clove Exports, Pemba.

Year.	WETI DISTRICT.					CHAKE-CHAKE DISTRICT.					MKOANI DISTRICT.					Total Pemba.		
	Weti.		Junguni.		Kipangani. (Matanga- twani)	Msuka.	District Total.		Chake.	Kiswani.	District Total.	Janbani- gome.		Mkoani.	Fufuni.		Kongole.	District Total.
	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.	Fs.		Fs.	Fs.
1914	88,433	13,786	5,721	8,666	6,594	1,23,200	85,779	23,550	1,09,329	45,043	13,988	10,947	21,826	91,804			3,24,333	
1915	1,64,655	25,072	12,992	21,738	11,126	2,35,583	1,46,913	46,330	1,93,243	79,069	26,732	40,228	46,093	1,92,722			6,21,548	
1916	1,17,387	26,709	12,168	7,305	5,950	1,69,519	81,807	28,707	1,13,514	62,931	14,788	22,144	42,279	1,42,142			4,25,175	
1917	20,951	12,135	5,248	7,828	4,449	50,611	23,096	8,011	31,107	23,114	4,654	12,010	10,850	50,628			1,32,346	
1918	76,309	17,786	15,555	10,503	5,429	1,25,582	1,29,911	16,032	1,41,066	74,253	28,153	10,583	37,815	1,50,804			4,18,052	
1919	1,40,562	18,810	10,269	7,427	5,763	1,82,831	77,261	28,463	1,05,724	51,370	16,964	13,876	26,807	1,09,017			3,97,572	
1920	31,674	3,804	1,010	1,001	4,874	41,863	29,311	5,499	35,810	16,433	2,096	6,923	11,823	37,275			1,14,918	
1921	1,04,339	12,302	10,650	7,711	9,663	1,44,608	93,560	20,740	1,14,341	12,484	55,703	26,131	44,756	1,39,074			3,98,083	
1922	1,18,000	17,700	3,400	7,500	6,700	1,53,300	1,07,000	37,500	1,44,500	76,500	16,200	51,100	43,400	1,89,200			4,87,000	
1923	1,33,688	29,244	18,814	12,308	4,897	1,98,951	1,49,289	34,196	1,53,485	53,079	15,490	27,149	49,595	1,45,313			4,97,749	
1924	88,472	26,387	7,109	7,225	4,916	1,34,139	97,033	35,516	1,32,549	56,240	20,153	38,806	37,204	1,62,453			4,29,141	
1925	72,322	31,115	6,870	12,520	7,403	1,30,230	1,29,808	61,752	1,87,560	64,239	18,842	38,196	56,448	1,77,725			4,95,515	
Average 12 Years	96,399	19,529	9,151	9,311	6,482	1,40,873	93,044	28,858	1,21,902	51,229	20,313	2,491	35,962	1,32,346			3,99,121	

NOTE. This table shows the various places from which cloves, etc., are shipped in Pemba and is connected with the question of road provision; and facilities for getting produce to Zanzibar in better condition than is possible under the present system of carriage by carcases and dhows.

TABLE VI.

Export of cloves to different Continents from 1910 to 1925 in
fraslas of 35 lbs. each:—

Continent	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
Europe	137,168	224,124	173,356	251,133	163,074	264,857	239,608	102,904
America	31,329	100,311	73,615	56,443	99,998	128,409	62,429	51,946
Asia	194,521	248,740	186,852	193,501	218,793	329,295	272,340	298,284
Africa	3,658	5,712	1,947	7,858	3,004	3,881	5,132	35,609
Australia	...	...	...	...	...	...	...	...
Total	366,676	578,896	435,770	508,935	484,869	726,442	579,509	188,743

Continent	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.
Europe	27,729	172,927	93,698	193,738	185,629	308,890	155,197	196,880
America	15,834	42,699	29,225	104,208	120,256	102,938	111,760	158,259
Asia	241,979	339,595	124,502	230,355	273,014	224,819	255,379	336,823
Africa	160,042	39,982	4,321	4,550	12,662	4,210	15,600	7,267
Australia	...	...	...	2,496	5,635	1,210	3,853	2,246
Total	475,584	615,203	251,746	535,347	597,196	642,067	541,789	701,475

Figures for previous years are given in my 1910 Annual Report.

TABLE VII.

Comparative prices of cloves and stems in London and in Zanzibar (pence per lb.) 1925 :—

Month.	London.					Zanzibar.	
	Penang.	Amboyna.	Madagascar.	Zanzibar.	Stems.	Zanzibar.	Stems.
January	33·00	16·50	14·00	12·50	4·00	8·25	2·25
February	33·00	16·50	14·00	12·00	4·00	8·00	2·25
March	33·00	16·50	14·00	12·00	4·00	8·00	2·00
April	27·00	16·50	13·00	12·00	4·00	7·25	2·00
May	27·00	16·50	13·00	11·50	4·00	7·00	2·00
June	27·00	16·50	13·00	11·00	4·00	7·25	2·25
July	27·00	16·50	13·00	12·00	4·00	8·25	2·50
August	27·00	16·50	13·00	11·50	4·00	8·50	2·00
September	27·00	16·50	13·00	12·00	4·00	8·00	2·00
October	27·00	16·50	13·00	11·50	4·00	8·00	2·00
November	27·00	16·50	13·00	11·37	4·00	6·75	1·75
December	27·00	17·50	13·00	12·00	4·00	7·50	2·00

TABLE VIII.

Average prices of cloves during 1925, month by month, in rupees compared with the five previous years:—

Month.	1920.			1921.		
	Zanzibar.	Pemba.	Stems.	Zanzibar.	Pemba.	Stems.
January	29.79	28.14	3.38	...	11.37	1.44
February	30.50	29.03	3.94	...	12.85	1.43
March	29.00	28.25	2.84	15.11	13.95	1.95
April	30.19	28.96	2.88	15.86	14.84	2.32
May	...	29.39	2.70	16.02	14.58	3.08
June	...	28.62	2.25	16.29	14.91	3.41
July	22.00	22.03	2.10	22.91	21.00	4.52
August	...	19.50	2.31	26.02	24.03	5.94
September	...	21.09	2.37	26.06	24.19	5.46
October	24.87	20.97	2.19	27.30	25.12	6.25
November	14.87	14.25	1.69	30.80	28.02	6.79
December	14.50	12.06	1.62	31.37	28.67	6.49
Yearly Average	24.46	23.52	2.52	22.77	19.46	4.17
Month.	1922.			1923.		
	Zanzibar.	Pemba.	Stems.	Zanzibar.	Pemba.	Stems.
January	29.67	29.65	7.81	18.04	17.34	4.38
February	27.65	27.42	7.17	17.19	18.19	5.14
March	25.23	23.62	6.71	18.15	20.47	5.01
April	25.38	24.90	6.34	16.65	19.94	4.44
May	27.54	26.12	6.56	16.12	19.31	4.16
June	26.10	22.67	6.50	18.70	21.42	4.85
July	24.07	20.97	6.25	23.62	24.40	5.78
August	23.92	21.84	5.89	23.97	24.75	5.19
September	20.56	19.05	3.81	24.12	23.33	5.36
October	16.72	15.00	3.92	27.64	26.11	6.19
November	13.91	12.30	2.95	28.49	27.50	7.14
December	13.69	13.31	2.98	28.94	27.75	7.29
Yearly Average	22.87	21.40	5.57	21.76	22.54	5.41
Month.	1924.			1925.		
	Zanzibar.	Pemba.	Stems.	Zanzibar.	Pemba.	Stems.
January	26.80	26.51	6.94	18.00	18.16	4.81
February	25.51	23.87	6.50	17.66	17.42	4.34
March	25.17	23.12	5.77	17.28	17.62	4.62
April	26.08	22.96	5.25	16.03	16.12	4.24
May	25.50	23.84	5.87	15.37	16.14	4.34
June	21.72	20.01	7.00	16.22	16.57	4.70
July	24.83	22.58	6.31	18.34	17.72	5.17
August	21.28	18.97	4.40	18.46	17.80	4.64
September	18.83	17.07	4.30	17.35	16.61	4.36
October	20.79	18.91	5.55	17.05	16.73	4.21
November	21.22	20.07	5.62	15.12	16.11	3.85
December	19.75	19.41	5.30	16.35	17.65	4.38
Yearly Average	23.12	21.44	5.73	16.94	17.05	4.47

TABLE IX.

Export of copra (produced in the Protectorate) for the past 10 years, and average price of copra per frasila of 35 lbs

Year.	Fraslas.	Average price per frasla of 35 lbs.
		Rs. Cts
1915	5,49,472	3 73
1916	3,50,238	4 72
1917	4,21,316	7 10
1918	2,03,616	3 71
1919	9,07,329	5 31
1920	5,38,595	6 59
1921	7,57,990	6 60
1922	4,69,878	5 33
1923	6,01,110	4 82
1924	9,88,393	4 85
1925	11,03,717	4 49

TABLE X.

Monthly average price of copra 1925.

Month.	Per frasila	Equivalent to £ per ton
	Rs. Cts.	£. s. d.
January	4 61	19 13 5
February	4 46	19 0 7
March	4 51	19 4 10
April	4 53	19 6 7
May	4 53	19 6 7
June	4 53	19 6 7
July	4 50	19 4 0
August	4 53	19 6 7
September	4 51	19 4 10
October	4 51	19 4 10
November	4 23	18 11 0
December	4 38	18 13 9
Yearly average	4 49	19 3 10

TABLE XI.

Survey of clove harvest returns, 1925/26.

Shamba.	Bearing trees.	Green Cloves.		Dry Cloves.		% loss between green and dry.	Dry Stems lbs.
		lbs. Picked.	Amount spent. Rs. cts.	lbs. Pro-duced.	lbs. per tree.		
ZANZIBAR.							
Marseilles ..	16,772	179,174	4,819 00	56,396	3.36	62	10,149
Basra ..	6,911	96,102	2,706 64	31,496	4.56	66	6,230
Kinaoni ..	3,217	47,124	1,279 35	15,567	4.82	67	3,398
Kitumba ..	1,120	28,879	837 35	8,092	7.22	72	1,694
Koani ..	3,268	9,925	243 88	1,785	0.55	82	523
Dunga ..	4,182	139,524	3,889 14	29,882	7.14	78	7,431
Kizimbanis ..	9,329	199,130	5,800 36	63,258	6.78	68	9,724
Mlangos ..	10,989	269,393	7,889 17	82,277	7.49	69	16,612
Kipange ..	4,642	55,934	1,614 88	16,233	3.50	70	2,765
Kinauni Moshi ..	1,979	39,173	1,130 86	11,492	5.81	70	2,258
Bumbwi Sudi ..	2,224	35,450	999 06	9,715	4.37	72	2,133
Seleni ..	13,378	323,370	9,414 55	92,632	6.94	71	14,249
Mahonda ..	5,739	94,285	2,992 43	29,273	5.10	69	4,024
Mbaleni Kulwa ..	4,777	84,523	2,577 85	21,916	4.58	75	3,239
Mbaleni Ndo ..	1,813	18,130	474 86	4,489	2.47	75	906
Kitope ..	6,280	77,489	2,378 66	19,125	3.04	75	3,408
Mkanyageni ..	5,925	149,645	4,593 97	44,413	7.50	70	6,729
Kidichi and Mdo ..	2,942	70,569	1,863 41	15,397	5.23	78	3,242
Mgongowangamia...	1,631	13,162	352 45	2,359	1.45	74	582
Mazizini Group ..	126	587	9 36	184	1.46	68	35
Total ..	107,204	1,930,828	55,856 19	555,921	5.18	71	99,331
PEMBA.							
Fufuni ..	7,747	104,721	3,165 94	30,737	3.96	71	6,216
Tundaa ..	4,135	8,320	222 36	2,852	0.69	66	536
Makondeni ..	2,476	10,514	260 30	3,118	1.26	70	548
Kizimbani ..	55	250	8 80	65	1.18	74	..
Total ..	14,413	123,805	3,597 40	36,772	2.55	70	7,300

TABLE XIV.

GOVERNMENT PLANTATIONS.
List of Plantations, Cloves and Coconuts on each, whether operated or leased, 1925.

PLANTATION.	CLOVES				COCONUTS			LARGEES CULTIVATING Native food crops.			TOTAL	REMARKS.	
	Bearing trees	Open d value Rs.	Leased rent Rs.	Bearing trees	Operated value Rs.	Leased rent Rs.	Licences	Pongoles	Rent Rs.	Revenue Rs.			
ZANZIBAR.													
Basra	6,911	16,198	...	1,327	...	2,050	...	...	...	18,248	Leased for 25 years from 1st June, 1906.	
Betelmal Kubwa	134	...	...	7,572	...	2,700	...	...	...	2,700		
" Ndogo	61	...	4	762	...	919	...	...	...	923		
Betelras	46	...	...	4,980	22,622	...	...	90	19	19		
Marhubi	1,432		
Mtoni	259	...	60	10,068			22,682	
Kibweni	3	...	...	1,501	...	...	...	2	8	2		
Walezo and Chumbuni	156	...	...	615	...	...	...	...	...	100		
Bumbwi Sudi	2,057	4,996	...	884	...	1,975	...	64	10	7,066			
Kichwele	167		...	116	...	85	5	...	...	...
Chuni	...	...	...	1,203	...	...	...	...	...	...
Bomani	...	...	...	732	...	5,550	28	273	55	5,605		
Kama	683	
Mkunguni	...	...	...	1,543	...	...	...	...	...	...
Nyanjale	45	...	8	1,655	...	...	...	...	...	...
Chukwani	...	...	...	6,310	...	7,825	25	384	59	7,884		
Chwaka	...	...	...	160	...	450	...	...	...	450		
Dunga	4,182	15,368	...	14,500	...	12,680	23	310	58	28,106			
Kidichi and Mdo	2,942	7,918	...	8,261	...	12,500	46	466	75	20,493			
Kidogobasi	...	...	25	140	...	207	...	...	...	232		
Kinaoni	3,217	7,975	...	8,858	...	5,780	17	247	43	13,798			
Kinuni Mushi	1,979	5,910	...	1,729	...	1,710	34	339	62	7,682			
Carried forward	22,212	58,365	97	75,031	22,622	54,531	189	2,181	383	135,938			

List of Plantations, Cloves and Coconuts on each, whether operated or leased. 1923.—(Continued)

PLANTATION.	Cloves.			Coconuts.			Licences cultivating Native food crops.			Total Revenue Rs.	REMARKS.
	Bearing trees	Operated value Rs.	Leased rent Rs.	Bearing trees	Operated value Rs.	Leased rent Rs.	Licences	Pengates	Rent Rs.		
Brought forward	22,212	58,365	97	75,031	22,622	54,531	189	2,181	383	135,365	
Kizimbani Kabwa	7,016	...	...	3,685	...	4,400	...	...	...	4,400	
" Ndogo	200	32,533	...	1,572	...	2,150	32	383	52	34,735	
Bumbwi Kizimbani	2,113	...	...	786	...	710	...	...	...	710	
Kipange	4,642	8,348	...	1,294	...	1,570	...	...	...	9,918	
Kitope	6,280	9,856	...	2,424	...	2,510	...	...	...	...
Pangeni and Gonjoni	550	...	300	560	...	606	11	182	26	18,278	
Kitumbi	1,120	4,162	...	3,410	...	4,500	36	423	75	8,737	
Koani	3,288	918	...	4,000	...	5,510	...	...	...	6,428	
Mahonda	5,739	15,055	...	1,777	...	1,880	5	79	9	16,944	
Mangapwani	...	...	...	650	...	725	...	...	...	725	
Marseilles	7,945	...	...	12,056	...	15,000	14	169	20	15,020	
Manyame	2,250	...	...	2,124	...	1,360	...	...	...	1,360	
El-Hathra	4,907	29,004	...	4,001	...	2,350	9	81	11	31,365	
Darajani	1,670	...	...	2,650	...	3,610	28	341	58	3,668	
Miwani	672	...	...	7,629	...	4,300	37	542	87	4,387	
Mazizini	23	...	...	1,614	...	2,440	46	690	122	2,562	
Kilimani	...	...	...	181	...	415	...	...	...	415	
Gulioni	...	...	...	91	with Mwenbeladu	...	...	...	...	...
Migombani	...	...	...	354	...	415	7	76	18	528	
Kisaoni	96	95	...	2,470	...	5,000	16	252	42	5,042	
Nyangombe	6	...	...	577	...	704	22	280	54	758	
Sebleni	...	...	...	257	...	255	21	246	49	304	
Ziwani	72	...	...	160	...	170	...	...	...	170	
Carried forward	70,782	1,58,316	387	1,29,303	22,622	1,15,311	47	5,875	1,006	2,97,652	

List of Plantations, Claves and Coconuts on each, whether operated or leased, 1925—(Continued).

PLANTATION.	COCONUTS.				Licences, cultivating Native food crops.				TOTAL	REMARKS.	
	Bearing trees	Operated value Rs.	Leased rent Rs.	Bearing trees	Operated value Rs.	Leased rent Rs.	Licences				
							Pongoles	rent Rs.			
Brought forward	70,782	1,58,316	397	1,29,303	22,622	1,15,311	473	5,875	1,003	2,97,652	
Mbaleni Kubwa	1,777	11,271	...	921	...	1,840	5	52	13	1,3124	
Mbaleni Ndogo	1,813	2,309	...	776	...	1,250	6	77	12	3,571	
Mkongovangania	1,631	1,213	...	912	...	1,090	...	...	...	2,363	
Mkanyageni	5,925	22,841	...	901	...	1,410	25	205	51	24,302	
Mkokotoni	...	...	...	776	824	...	...	...	...	824	
Mianzini	...	...	...	125	...	310	...	...	...	310	
Mlango Kubwa	6,910	42,314	...	1,381	...	2,770	15	287	37	46,371	
" Ndogo	4,079	...	...	768	...	1,250	...	...	...	...
Mpapa	270	...	275	3,823	...	11,000	56	1,062	161	11,436	
Mwembeladu	...	...	...	985	...	1,957	...	...	...	1,957	
Mwera bridge	...	...	...	60	...	205	...	...	...	205	
Salem	13,338	47,639	...	9,304	...	12,500	33	411	61	60,200	
Total	109,525	285,903	672	155,035	23,446	150,893	613	7,969	1,341	462,255	
PEMBA.											
School	519	with Mpoma	...	71	...	40	...	...	...	...
Domani	153	...	50	27	...	20	...	...	...	...
Kizimbani	55	33	...	65	...	60	...	...	...	...
Wakf	305	with Mpoma	...	67	...	9	...	...	...	...
Fueni	409	...	40	38	...	11	...	...	...	...
Mpona	1,300	...	335	204	...	30	...	...	...	...
Makondeni	2,476	1,604	...	123	...	50	...	...	...	...
Carried forward	5,217	1,637	425	595	...	220	...	...	...	...

List of Plantations, Claves and Coconuts on each, whether operated or leased, 1925-... (Continued).

PLANTATION.	CLOVES.			COCONUTS.			Licencees cultivating Native food crops.			TOTAL	REMARKS.
	Bearing trees	Operated value Rs.	Leased rent Rs.	Bearing trees	Operated value Rs.	Leased rent Rs.	Licences	Pengeles	Rent Rs.	Revenue Rs.	
Brought forward	5,217	1,687	425	595	...	220	...	...	...	...
Kisiwani	50	...	...	...	...	...	...	...	...	...
Mfangatwani	1,384	...	60	706	...	561	...	...	...	...
Makne	1,269	...	...	70	...	30	...	...	...	...
Chwaka	...	...	...	2,000	...	1,115	...	...	...	...
Kichanjanani	...	...	...	270	...	174	...	...	...	...
Pinga	...	...	...	64	...	11	...	...	...	...
Kisaoni	...	...	...	190	...	8	...	...	...	...
Chake chake	...	...	...	94	...	34	...	...	...	...
Kungeni	592	...	60	273	...	50	...	...	...	...
Kichwani	...	...	...	386	...	30	...	...	...	...
Tundana	4,135	1,467	...	9,477	...	5,625	...	...	...	...
Wesha	242	...	150	565	...	450	...	...	...	...
Mkoani	180	...	...	172	...	70	...	...	...	...
Fufuni	7,747	15,808	...	1,197	...	450	...	...	...	...
Michenzani	490	...	...	116	102	...	...	...	...	...
Kwamacho	587	...	500	95	...	34	...	...	...	...
Total	21,843	18,912	1,195	16,270	102	8,862	...	...	...	29,071	
Total Zanzibar & Pemba	131,368	304,815	1,867	171,305	23,548	159,755	613	7,939	1,341	191,326	

TABLE XV.
Comparison of actual revenue and expenditure on the Government plantations year by year:—

YEAR.	REVENUE.				EXPENDITURE.				
	Cloves. Rs.	Coconuts, Rs.	Sundry. Rs.	Total. Rs.	Personal emoluments, Rs.	Cultivation, Rs.	Clove harvest, Rs.	Sundry. Rs.	Total. Rs.
1910	35,636	33,009	36,289	1,04,934	10,932	41,839	6,081	8,736	67,598
1911	1,01,313	41,576	33,604	1,76,493	9,362	54,780	28,366	10,127	1,02,635
1912	1,63,042	60,443	30,988	2,54,473	14,684	62,238	29,160	15,809	1,21,891
1913	1,85,185	72,771	29,053	2,87,009	17,962	62,554	38,391	15,643	1,34,550
1914	67,000	78,745	29,818	1,75,563	32,159	59,603	36,309	12,577	1,40,648
1915	1,77,977	74,964	25,800	2,78,741	41,660	65,522	55,439	5,785	1,68,406
1916	1,66,391	74,770	21,039	2,62,200	44,220	70,485	63,146	6,878	1,84,729
1917	2,50,348	1,01,511	16,321	3,68,180	41,492	79,149	23,535	6,944	1,51,120
1918	2,13,030	1,19,606	18,263	3,50,899	51,643	90,587	63,404	12,414	2,18,048
1919	2,08,491	1,27,650	15,708	3,51,849	55,879	1,15,741	37,426	11,229	2,20,275
1920	95,524	1,57,085	9,900	2,62,509	51,727	1,24,638	35,522	15,080	2,26,967
1921	3,61,736	1,47,999	18,456	5,28,191	65,410	1,44,979	81,434	21,984	3,30,807
1922	70,731	1,17,499	39,211	2,27,441	69,096	1,54,429	98,531	21,822	3,26,878
1923	5,01,149	1,45,604	13,642	6,60,395	65,839	1,60,919	64,628	27,380	3,18,766
1924	4,52,168 ⁽¹⁾	1,46,087 ⁽²⁾	11,518	6,09,773	68,995	1,41,322	74,310	25,814	3,10,441
1925	3,85,068 ⁽³⁾	1,92,784	9,177	5,87,029	52,700	1,69,064	68,340	35,307	3,25,411 ⁽⁴⁾

(1) Including value of Stock of Cloves and Stems in hand Rs. 3,56,000.

(2) Including value of Copra in hand Rs. 6,039.

(3) Including value of stock of cloves in hand Rs. 3,04,815.

(4) Including Expenditure on Dole and Masingini Rs. 6,741.

TABLE XVI.

Meteorological observations, 1925:—

Month.	Temperature.						Rainfall.									
	Zanzibar Town.			Pemba, Banani.			Zanzibar.						Pemba.			
	Means of.		Absolute.	Means of.		Absolute.	Town.	Salem.	Kidiche.	Koani.	Mko-kotoni.	Chwaka.	Banani.	Weti.		
	Max.	Min.	Max.	Min.	Max.	Min.										
January	85.1	77.5	88.2	71.3	86.6	78.1	89.0	72.0	7.56	6.64	8.14	10.00	4.79	11.64	7.71	3.99
February	85.5	78.3	89.0	75.2	87.1	78.1	89.5	75.5	2.89	6.28	5.22	5.29	4.45	5.20	5.71	3.92
March	87.2	79.3	89.8	76.0	88.3	79.1	90.5	77.0	6.52	6.94	6.36	3.42	8.72	3.99	3.44	6.86
April	86.9	78.7	89.8	75.2	89.8	79.3	92.0	77.0	5.68	11.14	9.44	6.95	8.81	3.75	10.65	7.61
May	85.7	77.3	88.6	75.2	86.1	77.2	89.0	75.0	2.44	2.76	2.33	3.34	4.51	3.01	7.79	7.02
June	84.1	75.5	86.0	72.9	85.2	76.6	88.0	74.0	2.45	2.90	4.13	5.28	3.33	1.14	2.93	3.77
July	82.2	73.9	84.5	72.0	83.4	74.7	85.0	73.0	1.48	2.05	1.78	1.75	2.93	2.72	4.94	3.76
August	82.4	73.6	84.0	71.5	83.7	74.4	86.0	72.0	2.43	3.37	6.27	3.84	4.93	3.34	1.68	1.55
September	83.5	74.1	86.2	72.8	85.4	74.6	88.0	73.0	1.58	3.31	5.25	4.17	3.21	1.71	1.21	1.46
October	84.5	76.3	87.6	74.6	86.5	76.5	89.0	73.0	8.69	9.74	11.97	9.97	7.72	7.60	5.70	7.79
November	85.5	78.2	88.8	75.8	87.1	78.2	90.0	75.5	11.09	13.41	14.90	14.39	7.85	5.74	5.62	9.64
December	86.4	79.4	88.8	73.4	88.0	79.3	91.0	76.0	12.87	10.74	14.50	17.58	13.62	9.81	6.28	8.08
Total	84.9	76.8	83.8	71.3	86.4	77.1	92.0	72.0	65.68	79.28	90.29	85.98	74.87	59.65	63.66	65.45

